

1. [Khan Academy website review](#)
2. [PhET Simulations website review](#)
3. [MIT open coursewear](#)

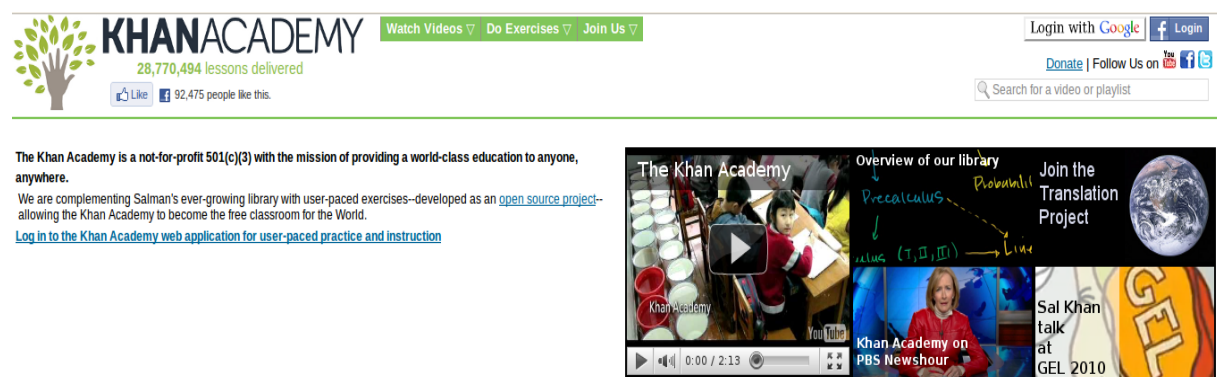
Khan Academy website review

A review of the Khan Academy website. Watch short videos that cover many subjects, that explain concepts in a great and easy to understand conversational manner.

Khan Academy

<http://www.khanacademy.org/>

[[link](#)]



- A not-for-profit organisation with the mission of providing a world-class education to anyone, anywhere
- The Khan Academy is all about using video to explain the world, with the work focussed on creating a good experience for students
- They place deep understanding of content above anything else
- Videos cover chemistry, organic chemistry, physics, maths, biology, history, economics

What the website offers:

- Over 1800 videos, it is easily the most exhaustive collection of instruction on the internet
- Learners can fill in almost any of their "gaps" from class with the content on this site

- The content is in 10-20 minute videos especially made for viewing on the computer
- Great conversational style of the videos – not what people expect when receiving maths and science instruction
- You can access exercises by logging in – if you have a Gmail or Facebook account you simply sign in with these when prompted after clicking on “do exercises” at the top of the page. You can watch the relevant video and then attempt to complete the exercise, and submit your answer online

Classroom use

- The videos do not follow a curriculum
- The author believes that someone who truly understands the core concepts will thrive academically regardless of the curricular context
- Because of the granular nature of the 10 minute videos, the content can be mapped to almost any state's or nation's standards
- Khan Academy videos can be downloaded and saved to a flashdrive

Teacher and user comments

- I think resources like the Khan Academy have a lot more potential in higher ed than things like lecture capture systems. I'd much rather have my students watch a few of these videos before class, then work through more problems and questions with me during class... I would imagine that many of my students would get more out of these videos than they would reading the textbook. I can't see these kinds of videos replacing classroom instruction, but for giving students first exposure to topics and for providing them with reinforcement after class – yeah, they've got lots of potential.
<http://castingoutnines.wordpress.com/2010/02/27/is-khan-academy-the-future-of-education/>
- I saw the piece on this wonderful teacher on PBS. Most of us strive to create an environment where the learner can be exposed to a variety of

explanations about the phenomena we study. These certainly would be part of that mix as long as we fully credit the importance of the author's/teacher's work to our students. One day, we will hopefully teach ourselves out of our jobs

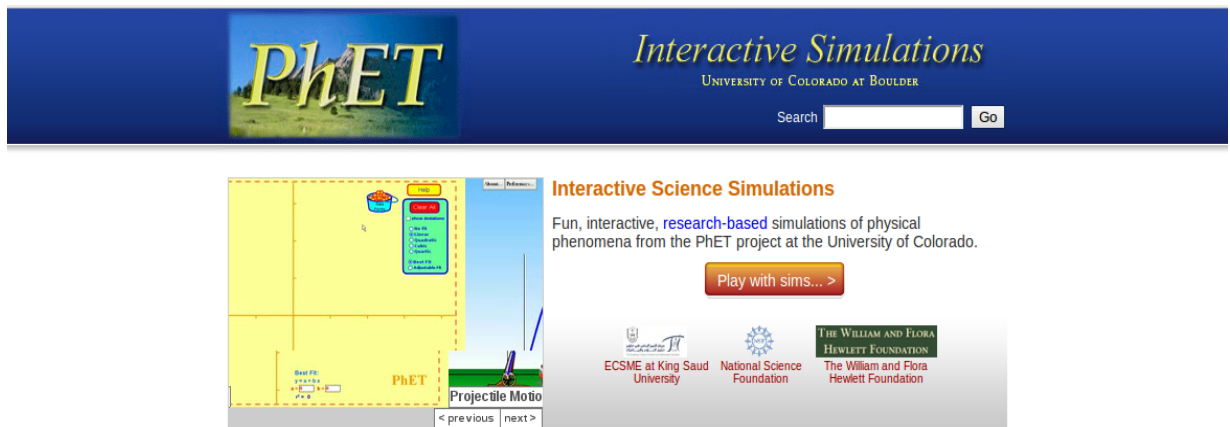
<http://msuctlt.blogspot.com/2010/02/khan-academy-game-changer.html>

- I am now in college and learning more than I ever have in my life. But an inadequate math background has been holding me back. I found the Kahn Academy in June of 2009, right after I completed Math 141 (a college algebra course). I have spent the entire summer on your youtube page. And I just wanted to thank you for everything you are doing. You are a Godsend. Last week I tested for a math placement exam and I am now in Honors Math 200. No question was answered incorrectly. My placement test holder was so impressed by the breadth of my knowledge of math that he said I should be in Linear algebra. Mr. Khan, I can say without any doubt that you have changed my life and the lives of everyone in my family. I wish you and the Khan Academy the best of luck. <http://www.khanacademy.org/about>

PhET Simulations website review

A review of the PhET Simulations website. Fun, interactive, research-based simulations of physical phenomena from the PhET project at the University of Colorado – it's free! Helps students visually comprehend concepts.

PhET Simulations



<http://phet.colorado.edu/>

- Fun, interactive, research-based simulations of physical phenomena from the PhET project at the University of Colorado – it's free!
- The PhET simulation design principles are based on research on how students learn
- PhET simulations have been found to be very effective in lectures, in class activities, lab and homework
- Designed with minimal text so that they can easily be integrated into every aspect of a course

What the website offers:

- It enables students to make connections between real-life phenomena and the underlying science, deepening their understanding and appreciation of the physical world

- Helps students visually comprehend concepts
- PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons
- In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers
- As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations
- There are simulations for physics, biology, chemistry, earth science, maths
- You can also search for them by grade level (American standards)
- You can find some simulations in Afrikaans (and many other languages too)

For teachers:

- There is a page dedicated to teachers – an ideas and activity page: <http://phet.colorado.edu/en/for-teachers>
- There are teacher submitted contributions, designed to be used in conjunction with the [PhET simulations](#)
- These contributions include homework assignments, lectures, activities, concept questions and more, and enable you to get the most out of your PhET experience
- If you have developed your own material, they encourage you to contribute it

MIT open courseware

An Open Education Resource (OER) MIT's goal is to make it easy for you to find resources you can use to inspire your students Show science demonstrations by MIT faculties in your classroom and understand concepts by watching video demonstrations



MIT Open Courseware

<http://ocw.mit.edu/high-school/biology/>

- An Open Education Resource (OER)
- MIT's goal is to make it easy for you to find resources you can use to inspire your students
- Show science demonstrations by MIT faculties in your classroom and understand concepts by watching video demonstrations
- Provide alternate explanations to reinforce key concepts
- Guide students to additional homework problems and exam examples
- Add to your knowledge as a teacher

What the website offers:

- Select a topic and then a subtopic for biology related information, which includes topics such as chemistry of life, cells, heredity, evolutionary biology and so on (subtopics refine your search)
- The search brings up video clips, audio clips, lecture notes, practice problems and exam questions that you can use in your classroom
- This site also links to [BLOSSOMS](#) – Blended Learning Open Source Science Or Maths Studies, which has a video library of biology (and maths and science) concepts, which includes teacher guides, written transcripts of the video and images used in the videos, as well as additional links to other online resources